

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

Claims 1-111 (Canceled).

112 (Currently amended): A method of inducing an immune response to at least one antigen comprising

- (a) ~~hydrating skin of an organism; and,~~
- (b) ~~—~~applying a formulation to ~~the hydrated~~ skin of an organism,  
wherein the formulation comprises
  - (i) at least one antigen which is derived from a pathogen and
  - (ii) at least one adjuvant,

wherein an effective amount of the at least one antigen which is not encapsulated by liposomes induces the immune response to the at least one antigen in the organism.

113-114 (Canceled).

115 (Previously presented): The method of claim 112, wherein the pathogen is selected from the group consisting of bacterium, virus, fungus and parasite.

116 (Previously presented): The method of claim 112, wherein the antigen is selected from the group consisting of carbohydrate, glycolipid, glycoprotein, lipid, lipoprotein, phospholipid, and polypeptide.

117 (Previously presented): The method of claim 112, wherein the pathogen is a live or an attenuated live virus and the antigen is expressed by the live or attenuated live virus.

118 (Previously presented): The method of claim 115, wherein the bacteria is anthrax.

119 (Previously presented): The method of claim 115, wherein the virus is rabies.

120 (Currently amended): The method of claim 112, wherein the adjuvant is selected from the group consisting of bacterial DNA, cytokines, chemokines[,] ~~tumor necrosis factor-alpha~~ and lipopolysaccharides.

121 (Previously presented): The method of claim 112, wherein at least one adjuvant is an ADP-ribosylating exotoxin or toxoid thereof having adjuvant activity.

122 (Currently amended): The method of claim 121, wherein the ADP-ribosylating exotoxin or toxoid thereof is selected from the group consisting of pertussis toxin, a pertussis toxin toxoid having adjuvant activity, cholera toxin (CT), a CT toxoid having adjuvant activity, an *E. coli* heat-labile enterotoxin (LT), an LT toxoid having adjuvant activity, diphtheria toxin (DT), a DT toxoid having adjuvant activity, Pseudomonas exotoxin A, and[[,]] a Pseudomonas exotoxin A toxoid having adjuvant activity.

123 (Previously presented): The method of claim 112, wherein the formulation comprises an ADP-ribosylating exotoxin B subunit.

124 (Previously presented ): The method of claim 112, wherein the formulation comprises an ADP-ribosylating exotoxin toxoid which is less toxic but remains immunogenic.

125 (Currently amended): The method of claim 112, wherein the formulation comprises an adjuvant selected from the group consisting of an ADP-ribosylating exotoxin in which ADP-ribosyl transferase activity is inactivated; an ADP-ribosylating exotoxin chemically conjugated to a carbohydrate, polypeptide, glycolipid, or glycoprotein antigen; an ADP-ribosylating

exotoxin subunit chemically conjugated to a carbohydrate, polypeptide, glycolipid, or glycoprotein antigen; and, an ADP-ribosylating toxoid chemically conjugated to a carbohydrate, polypeptide, glycolipid, or glycoprotein antigen.

126 (Previously presented): The method of claim 112, wherein the formulation is a cream or gel or emulsion or ointment or lotion or paste or solution or suspension.

127 -128 (Cancelled).

129 (Previously presented): The method of claim 112, wherein the formulation is applied with a patch.

130 (Previously presented): The method of claim 112, wherein the formulation further comprises a dressing.

131 (Previously presented): The method of claim 130, wherein the dressing is occlusive or non-occlusive.

132 (Currently amended): A method of inducing an immune response to at least one antigen comprising applying a formulation to skin of an organism, the formulation comprising

- (i) at least one antigen derived from a pathogen; and,
- (ii) at least one adjuvant;

wherein the formulation is selected from the group consisting of a solution, a cream, a gel, an emulsion, an ointment, a lotion, a paste, a suspension and combinations thereof;

~~wherein application of the formulation hydrates the skin;~~ and, wherein an effective amount of the at least one antigen induces the immune response to the at least one antigen in the organism.

133 (Previously presented): The method of claim 132, wherein the formulation is applied by patch.

134 (New): The method of claim 120, wherein said cytokine is tumor necrosis factor alpha.